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\* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 JAN 02 STN pricing information for 2008 now available  
NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances  
NEWS 4 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats  
NEWS 5 JAN 28 MARPAT searching enhanced  
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication  
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment  
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements  
NEWS 9 FEB 08 STN Express, Version 8.3, now available  
NEWS 10 FEB 20 PCI now available as a replacement to DPCI  
NEWS 11 FEB 25 IFIREF reloaded with enhancements  
NEWS 12 FEB 25 IMSPRODUCT reloaded with enhancements  
NEWS 13 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification  
NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats  
NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental spectra  
NEWS 16 MAR 31 CA/CAplus and CASREACT patent number format for U.S. applications updated  
NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI  
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements  
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued  
NEWS 20 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats  
NEWS 21 APR 28 EMBASE Controlled Term thesaurus enhanced  
NEWS 22 APR 28 IMSRESEARCH reloaded with enhancements

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* \* \* \* \* STN Columbus \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

FILE 'HOME' ENTERED AT 09:51:09 ON 08 MAY 2008

=> FILE CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 09:51:35 ON 08 MAY 2008  
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FILE COVERS 1907 - 8 May 2008 VOL 148 ISS 19  
FILE LAST UPDATED: 7 May 2008 (20080507/ED)

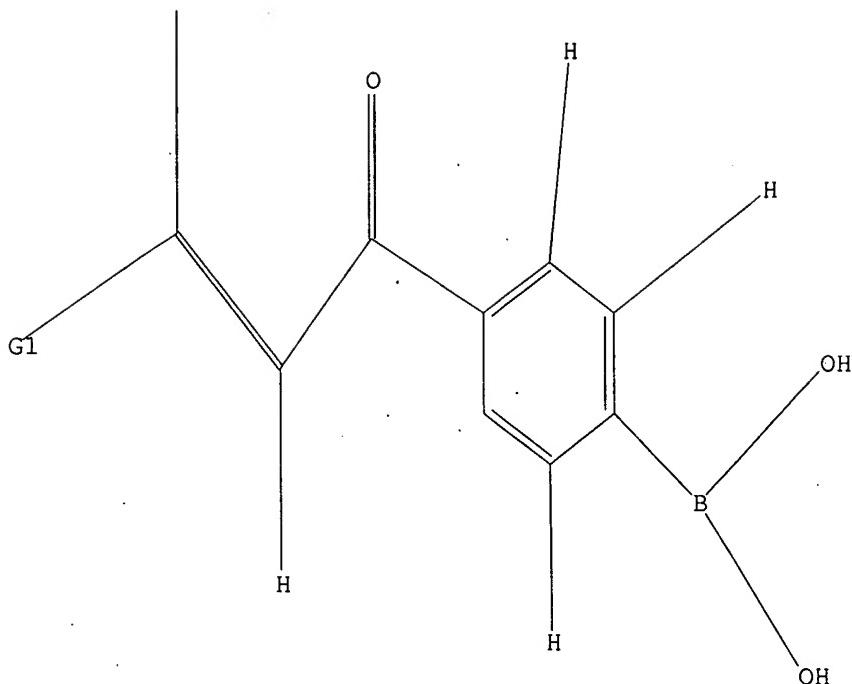
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They are available for your review at:

<http://www.cas.org/infopolicy.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\GM1.str

L1 STRUCTURE UPLOADED

=> D L1  
L1 HAS NO ANSWERS  
L1 STR



G1 Cb,Cy,Hy

Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL  
 REGISTRY INITIATED  
 Substance data SEARCH and crossover from CAS REGISTRY in progress...  
 Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 09:52:20 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 578 TO ITERATE

100.0% PROCESSED 578 ITERATIONS 9 ANSWERS  
 SEARCH TIME: 00.00.01

L2 9 SEA SSS FUL L1

L3 12 L2

=> FILE CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	0.48	179.53

FILE 'CAPLUS' ENTERED AT 09:52:52 ON 08 MAY 2008  
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FILE COVERS 1907 - 8 May 2008 VOL 148 ISS 19  
FILE LAST UPDATED: 7 May 2008 (20080507/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> S L3  
L4 12 L2

=> FILE REG  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
0.48 180.01

FILE 'REGISTRY' ENTERED AT 09:53:40 ON 08 MAY 2008  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3  
DICTIONARY FILE UPDATES: 7 MAY 2008 HIGHEST RN 1019993-29-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

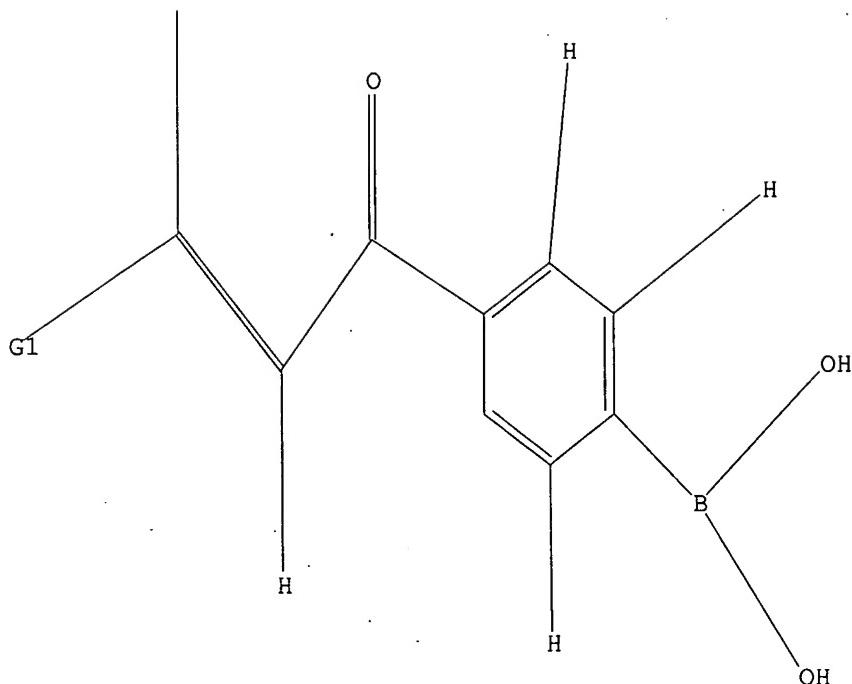
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\GM1.str  
  
L5 STRUCTURE uploaded  
  
=> D L5  
L5 HAS NO ANSWERS  
L5 STR



G1 Cb,Cy,Hy

Structure attributes must be viewed using STN Express query preparation.

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=> S L5 FULL
FULL SEARCH INITIATED 09:54:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 578 TO ITERATE
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100.0% PROCESSED 578 ITERATIONS 9 ANSWERS
SEARCH TIME: 00.00.01
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L6 9 SEA SSS FUL L5

=> FILE CAPLUS		SINCE FILE	TOTAL
COST IN U.S. DOLLARS		ENTRY	SESSION
FULL ESTIMATED COST		178.36	358.37

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FILE 'CAPLUS' ENTERED AT 09:54:23 ON 08 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 8 May 2008 VOL 148 ISS 19
FILE LAST UPDATED: 7 May 2008 (20080507/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> S L6

L7 12 L6

=> D L7 IBIB ABS HITSTR 1-12

L7 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:1393130 CAPLUS  
DOCUMENT NUMBER: 148:417386  
TITLE: Trans-4-iodo, 4'-boranyl-chalcone induces antitumor activity against malignant glioma cell lines in vitro and in vivo  
AUTHOR(S): Sasayama, Takashi; Tanaka, Kazuhiro; Mizukawa, Katsu; Kawamura, Atsufumi; Kondoh, Takeshi; Hosoda, Kohkichi; Kohmura, Eiji  
CORPORATE SOURCE: Department of Neurosurgery, Kobe University Graduate School of Medicine, 7-5-1, Kusunoki-cho, Chuo-ku, Kobe, 650-0017, Japan  
SOURCE: Journal of Neuro-Oncology (2007), 85(2), 123-132  
CODEN: JNODD2; ISSN: 0167-594X  
PUBLISHER: Springer  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Chalcones are considered the precursors of flavonoids and have been identified as interesting compds. with antitumor properties. Boronic-chalcone derivs. are more toxic to breast cancer cells compared to normal breast cells. Here, we studied the antitumor activities of trans-4-iodo, 4'-boranyl-chalcone (TLBC), which is a boronic-chalcone derivative, in several glioma cell lines. TLBC showed a dose-dependent inhibition with inhibitory concentration 50% value in the  $\mu\text{M}$  range (5.5-25.5  $\mu\text{M}$ ) in various glioma cell lines. Flow cytometric and western blot assay demonstrated that TLBC induced apoptosis independent of changes to the tumor suppressor p53. This cytotoxic effect was the caspase-dependent manner. Also, TLBC lowered levels of anti-apoptotic Bcl-2 and/or Bcl-XL protein in several of the cell lines. To examine the antitumor effect of TLBC in vivo, we used a malignant glioma xenograft model. This result showed that in the mice treated with TLBC at 20 mg/kg, mean tumor volume was reduced by 43.9% ( $P < 0.01$ ) in comparison with the control group. Immunohistochem. and western blot anal. showed that Bcl-2 protein levels were decreased and Bax protein levels were slightly increased in the tumors injected with 20 mg/kg TLBC compared with the control tumors. Therefore, we conclude that TLBC may be a potential chemotherapeutic agent for human glioma.

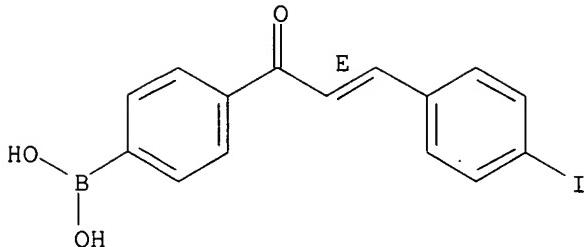
IT 562823-84-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(trans-4-iodo, 4'-boranyl-chalcone induced cell cycle arrest, apoptosis and decreased antiapoptotic Bcl-2 as well as Bcl-XL protein expression in human glioblastoma cell)

RN 562823-84-1 CAPLUS

CN Boronic acid, B-[4-[(2E)-3-(4-iodophenyl)-1-oxo-2-propen-1-yl]phenyl]-  
(CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:90998 CAPLUS  
 DOCUMENT NUMBER: 146:158818  
 TITLE: Quaternary nitrogen heterocyclic compounds for detecting aqueous monosaccharides in physiological fluids  
 INVENTOR(S): Geddes, Chris D.; Badugu, Ramachandram; Lakowicz, Joseph R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 72pp., Cont.-in-part of Appl. No. PCT/US2004/022717.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070020182	A1	20070125	US 2005-318663	20051227
WO 2005000109	A2	20050106	WO 2004-US22717	20040628
WO 2005000109	A3	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2003-483124P	P 20030627
			US 2003-483202P	P 20030627
			WO 2004-US22717	A2 20040628

AB Quaternary nitrogen heterocyclic boronic acid-containing compds. are described, which are sensitive to glucose and fructose, as well as a variety of other physiol. important analytes, such as aqueous chloride and iodide, and a method of using the compds. Also disclosed is a contact lens doped with the quaternary nitrogen heterocyclic boronic acid-containing compound, and a method of using the doped contact lens to measure the concentration

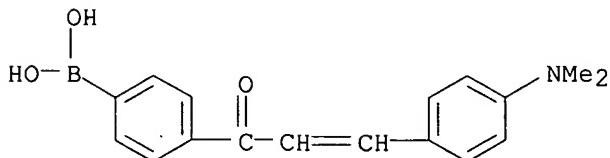
of analyte in tears under physiol. conditions.

IT 406719-92-4

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)  
 (quaternary nitrogen heterocyclic compds. for detecting aqueous monosaccharides in physiol. fluids)

RN 406719-92-4 CAPLUS

CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



L7 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:315088 CAPLUS

DOCUMENT NUMBER: 145:290

TITLE: Anticancer activities of novel chalcone and bis-chalcone derivatives

AUTHOR(S): Modzelewska, Aneta; Pettit, Catherine; Achanta, Geetha; Davidson, Nancy E.; Huang, Peng; Khan, Saeed R.

CORPORATE SOURCE: Division of Chemical Therapeutics, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, 21231, USA

SOURCE: Bioorganic & Medicinal Chemistry (2006), 14(10), 3491-3495

CODEN: BMECEP; ISSN: 0968-0896

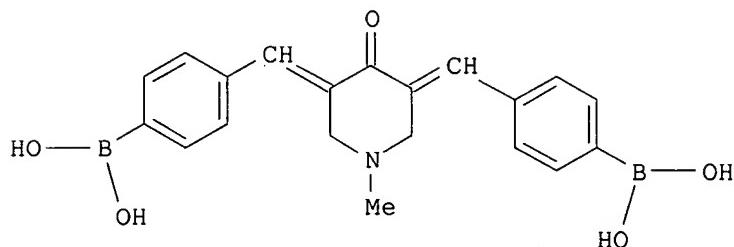
PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:290

GI



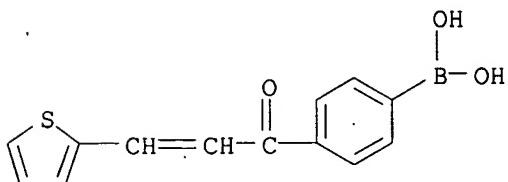
I

AB A series of novel chalcones and bis-chalcones containing boronic acid moieties has been synthesized and evaluated for antitumor activity against the human breast cancer MDA-MB-231 (estrogen receptor-neg.) and MCF7 (estrogen receptor-pos.) cell lines and against two normal breast epithelial cell lines, MCF-10A and MCF-12A. These mols. inhibited the growth of the human breast cancer cell lines at low micromolar to nanomolar concns., with five of them showing preferential inhibition of the human breast cancer cell lines. Furthermore, bis-chalcone I exhibited a more potent inhibition of colon cancer cells expressing wild-type p53 than of an isogenic cell line that was p53-null.

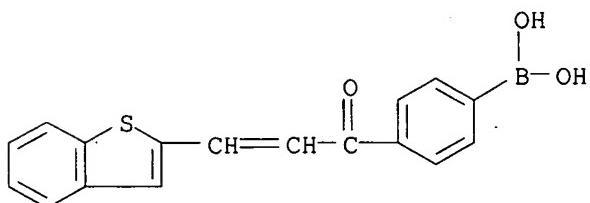
IT 888203-69-8P 888203-70-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anticancer activities of chalcone and bis-chalcone derivs.)  
RN 888203-69-8 CAPLUS  
CN Boronic acid, B-[4-[1-oxo-3-(2-thienyl)-2-propen-1-yl]phenyl]- (CA INDEX NAME)



RN 888203-70-1 CAPLUS  
CN Boronic acid, B-[4-(3-benzo[b]thien-2-yl-1-oxo-2-propen-1-yl)phenyl]- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

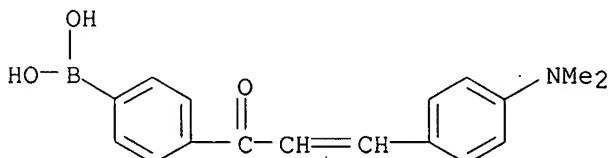
L7 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:1114291 CAPLUS  
DOCUMENT NUMBER: 145:58663  
TITLE: A glucose-sensing contact lens: a new approach to noninvasive continuous physiological glucose monitoring  
AUTHOR(S): Badugu, Ramachandram; Lakowicz, Joseph R.; Geddes, Chris D.  
CORPORATE SOURCE: Cent. fluorescence Spectroscopy, Dep. Biochem. & Mol. Biol., Univ. of Maryland School of Medicine, MD, 21201, USA  
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2004), 5317(Optical Fibers and Sensors for Medical Applications IV), 234-245  
CODEN: PSISDG; ISSN: 0277-786X  
PUBLISHER: SPIE-The International Society for Optical Engineering  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The authors have developed a new technol. for the non-invasive continuous monitoring of tear glucose using a daily use, disposable contact lens, embedded with sugar-sensing boronic acid containing fluorophores. The authors' findings show that the authors' approach may be suitable for the continuous monitoring of tear glucose levels in the range 50-500  $\mu$ M, which track blood glucose levels that are typically  $\approx$  5-10-fold higher. The authors initially tested the sensing concept with well-established, previously published, boronic acid probes and the results could conclude the used probes, with higher pKa values, are almost insensitive toward glucose within the contact lens, attributed to the low pH and polarity inside the lens. Subsequently, the authors have developed a range of probes based on the quinolinium backbone, having considerably lower pKa values, which enables them to be suitable to sense the physiol. glucose in the acidic pH contact lens. Herein the authors describe the

results based on the authors' findings towards the development of glucose sensing contact lens and therefore an approach to non-invasive continuous monitoring of tear glucose using a contact lens.

IT 406719-92-4, Chalc 1  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
     (noninvasive continuous physiol. glucose monitoring in contact lens)

RN 406719-92-4 CAPLUS

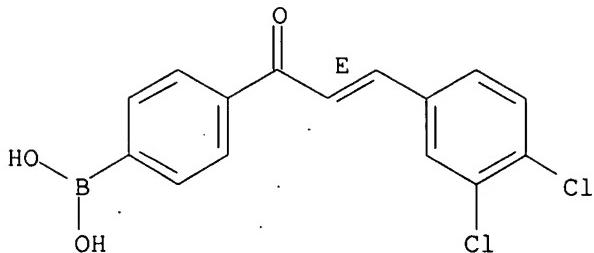
CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:952799 CAPLUS  
 DOCUMENT NUMBER: 143:398794  
 TITLE: Monitoring the Effects of Antagonists on Protein-Protein Interactions with NMR Spectroscopy  
 AUTHOR(S): D'Silva, Loyola; Ozdowy, Przemyslaw; Krajewski, Marcin; Rothweiler, Ulli; Singh, Mahavir; Holak, Tad A.  
 CORPORATE SOURCE: Max Planck Institute for Biochemistry, Martinsried, D-82152, Germany  
 SOURCE: Journal of the American Chemical Society (2005), 127(38), 13220-13226  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We describe an NMR method that directly monitors the influence of ligands on protein-protein interactions. For a two-protein interaction complex, the size of one component should be small enough (less than .apprx.15 kDa) to provide a good quality <sup>15</sup>N (<sup>13</sup>C) HSQC spectrum after <sup>15</sup>N(<sup>13</sup>C) labeling. The size of the second unlabeled component should be large enough so that the mol. weight of the preformed complex is larger than .apprx. 40 kDa. When the smaller protein binds to a larger one, broadening of NMR resonances results in the disappearance of most of its cross-peaks in the HSQC spectrum. Addition of an antagonist that can dissociate the complex would restore the HSQC spectrum of the smaller component. The method directly shows whether an antagonist releases proteins in their wild-type folded states or whether it induces their denaturation, partial unfolding, or precipitation. We illustrate the method by studying lead compds. that have recently been reported to block the MDM2-p53 interaction. Activation of p53 in tumor cells by inhibiting its interaction with MDM2 offers new strategy for cancer therapy.  
 IT 562823-90-9  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
     (monitored effects of antagonists on protein-protein interactions with NMR spectroscopy)  
 RN 562823-90-9 CAPLUS  
 CN Boronic acid, [4-[{(2E)-3-(3,4-dichlorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:14124 CAPLUS

DOCUMENT NUMBER: 142:89411

TITLE: Quaternary nitrogen heterocyclic compounds for detecting aqueous monosaccharides in physiological fluids

INVENTOR(S): Geddes, Chris D.; Badugu, Ramachandran; Lakowitz, Joseph R.

PATENT ASSIGNEE(S): University of Maryland Biotechnology Institute, USA

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000109	A2	20050106	WO 2004-US22717	20040628
WO 2005000109	A3	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1644330	A2	20060412	EP 2004-778295	20040628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 20070020182	A1	20070125	US 2005-318663	20051227
PRIORITY APPLN. INFO.:			US 2003-483124P	P 20030627
			US 2003-483202P	P 20030627
			WO 2004-US22717	W 20040628

OTHER SOURCE(S): MARPAT 142:89411

AB Disclosed are quaternary nitrogen heterocyclic boronic acid-containing compds. which are sensitive to glucose and fructose, as well as a variety of other physiol. important analytes, such as aqueous chloride and iodide, and a method of using the compds. Also disclosed is a contact lens doped with the quaternary nitrogen heterocyclic boronic acid-containing compound, and a method of using the doped contact lens to measure the concentration of analyte in

tears

under physiol. conditions.

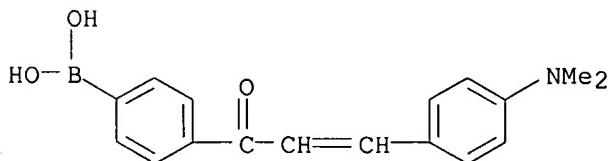
IT 406719-92-4

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)

(quaternary nitrogen heterocyclic compds. for detecting aqueous monosaccharides in physiol. fluids)

RN 406719-92-4 CAPLUS

CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



L7 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:621102 CAPLUS

DOCUMENT NUMBER: 142:234524

TITLE: Cyanide-sensitive fluorescent probes

AUTHOR(S): Badugu, Ramachandram; Lakowicz, Joseph R.; Geddes, Chris D.

CORPORATE SOURCE: Center for Fluorescence Spectroscopy, Department of Biochemistry and Molecular Biology, Medical Biotechnology Center, University of Maryland School of Medicine, Baltimore, MD, 21201, USA

SOURCE: Dyes and Pigments (2005), 64(1), 49-55  
CODEN: DYPIDX; ISSN: 0143-7208

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We characterize the response of several boronic acid containing fluorophores, which are widely used for sugar determination, towards aqueous cyanide. In two recent

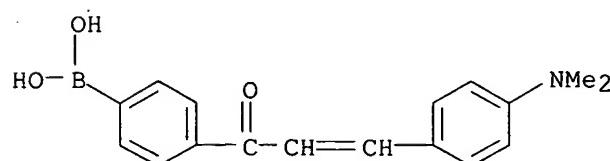
reports we have shown that boronic acid containing fluorophores can be used to sense aqueous cyanide through physiol. safeguard levels. In this report we show that our new sensing mechanism is not just specific to our recently reported probes, but is indeed generic to the boronic acid moiety itself. Subsequently a wide range of cyanide-sensitive probes can now be realized, offering several modalities for fluorescence based cyanide sensing such as: intensity, lifetime, ratiometric, polarization and modulation fluorescence sensing.

IT 406719-92-4, Chalc 1

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)  
(cyanide sensing by boronic acid-containing fluorescent probes)

RN 406719-92-4 CAPLUS

CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



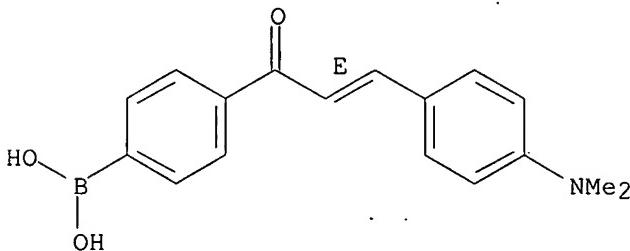
REFERENCE COUNT:

30

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:1011575 CAPLUS  
 DOCUMENT NUMBER: 140:195805  
 TITLE: Noninvasive continuous monitoring of physiological glucose using a monosaccharide-sensing contact lens  
 AUTHOR(S): Badugu, Ramachandram; Lakowicz, Joseph R.; Geddes, Chris D.  
 CORPORATE SOURCE: Center for Fluorescence Spectroscopy, Department of Biochemistry and Molecular Biology, Medical Biotechnology Center, University of Maryland School of Medicine, Baltimore, MD, 21201, USA  
 SOURCE: Analytical Chemistry (2004), 76(3), 610-618  
 CODEN: ANCHAM; ISSN: 0003-2700  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB We have tested the feasibility of tear glucose sensing using a daily, disposable contact lens embedded with boronic acid-containing fluorophores as a potential alternative to current invasive glucose-monitoring techniques. Our findings show that our approach may, indeed, be suitable for the continuous monitoring of tear glucose levels in the range 50-500  $\mu$ M, which track blood glucose levels that are apprx. 5-10-fold higher. We compare the response of the boronic acid probes in the contact lens to solution-based measurements and can conclude that both the pH and polarity within the contact lens need to be considered with respect to choosing/designing and optimizing glucose-sensing probes for contact lenses.  
 IT 661459-48-9  
 RL: ARU (Analytical role, unclassified); ANST (Analytical study) (noninvasive continuous monitoring of physiol. glucose using monosaccharide-sensing contact lens)  
 RN 661459-48-9 CAPLUS  
 CN Boronic acid, [4-[(2E)-3-[4-(dimethylamino)phenyl]-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

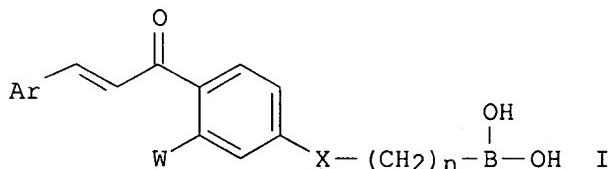


REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:1006923 CAPLUS  
 DOCUMENT NUMBER: 140:59511  
 TITLE: Preparation of boronic chalcone derivatives as anticancer agents  
 INVENTOR(S): Khan, Saeed R.  
 PATENT ASSIGNEE(S): Johns Hopkins University, USA  
 SOURCE: PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106384	A2	20031224	WO 2003-US18962	20030612
WO 2003106384	A3	20040617		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003243594	A1	20031231	AU 2003-243594	20030612
US 20050176988	A1	20050811	US 2005-517781	20050420
PRIORITY APPLN. INFO.:				
			US 2002-388255P	P 20020613
			US 2003-444429P	P 20030203
			WO 2003-US18962	W 20030612

OTHER SOURCE(S) : MARPAT 140:59511  
GI



AB The present invention relates to novel boronic chalcone derivs. I [Ar = (un)substituted heteroaryl, etc.; W = H, etc.; X = Zn, etc.; n = 0 or any integer; Z = (un)substituted alkylene, etc.] which are useful as antitumor/anticancer agents. The activity of compds. of this invention against the growth of human breast cancer cell lines was demonstrated.

IT 562823-84-1P 562823-90-9P 562823-91-0P

562823-92-1P 562823-93-2P

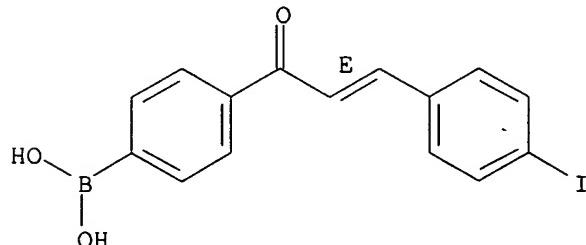
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of boronic chalcone derivs. as anticancer agents)

RN 562823-84-1 CAPLUS

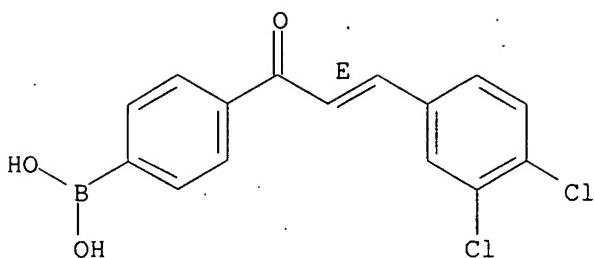
CN Boronic acid, B-[4-[(2E)-3-(4-iodophenyl)-1-oxo-2-propen-1-yl]phenyl]-  
(CA INDEX NAME)

Double bond geometry as shown.



RN 562823-90-9 CAPLUS  
CN Boronic acid, [4-[(2E)-3-(3,4-dichlorophenyl)-1-oxo-2-propenyl]phenyl]-  
(9CI) (CA INDEX NAME)

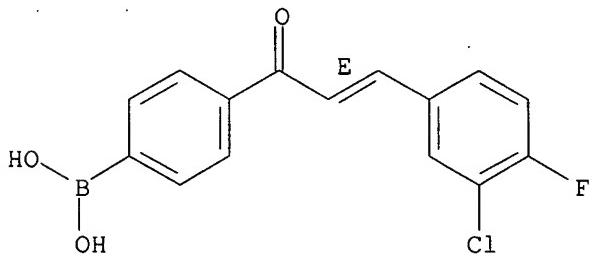
Double bond geometry as shown.



RN 562823-91-0 CAPLUS

CN Boronic acid, [4-[{(2E)-3-(3-chloro-4-fluorophenyl)-1-oxo-2-propenyl}phenyl]- (9CI) (CA INDEX NAME)

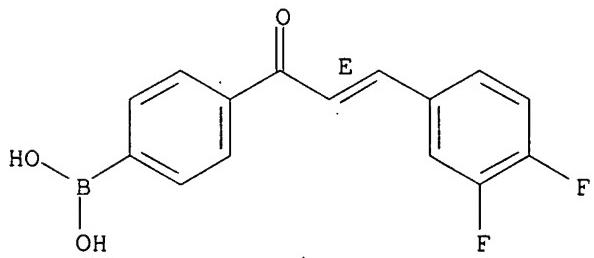
Double bond geometry as shown.



RN 562823-92-1 CAPLUS

CN Boronic acid, [4-[{(2E)-3-(3,4-difluorophenyl)-1-oxo-2-propenyl}phenyl]- (9CI) (CA INDEX NAME)

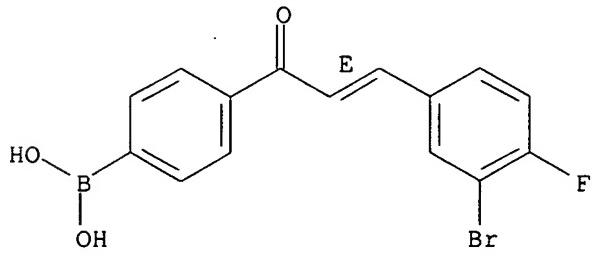
Double bond geometry as shown.



RN 562823-93-2 CAPLUS

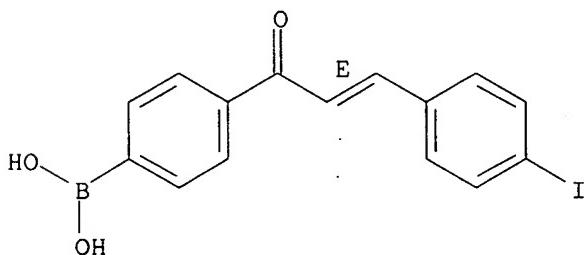
CN Boronic acid, [4-[{(2E)-3-(3-bromo-4-fluorophenyl)-1-oxo-2-propenyl}phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



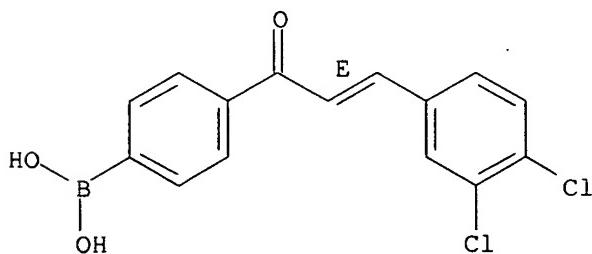
L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:410905 CAPLUS  
 DOCUMENT NUMBER: 139:117464  
 TITLE: Design, Synthesis, and Evaluation of Novel Boronic-Chalcone Derivatives as Antitumor Agents  
 AUTHOR(S): Kumar, Srinivas K.; Hager, Erin; Pettit, Catherine; Gurulingappa, Hallur; Davidson, Nancy E.; Khan, Saeed R.  
 CORPORATE SOURCE: Division of Experimental Therapeutics, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, 21231, USA  
 SOURCE: Journal of Medicinal Chemistry (2003), 46(14), 2813-2815  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:117464  
 AB A series of boronic-chalcone derivs., e.g. 4-IC6H4CH:CHCOC6H4B(OH)2-4, were synthesized and tested for antitumor activity against human breast cancer cell lines. The results show the boronic-chalcones are more toxic to breast cancer cells compared to normal breast cells than other known chalcones.  
 IT 562823-84-1P 562823-90-9P 562823-91-0P  
 562823-92-1P 562823-93-2P  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (design, synthesis, and evaluation of novel boronic-chalcone derivs. as antitumor agents)  
 RN 562823-84-1 CAPLUS  
 CN Boronic acid, B-[4-[(2E)-3-(4-iodophenyl)-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.



RN 562823-90-9 CAPLUS  
 CN Boronic acid, [4-[(2E)-3-(3,4-dichlorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

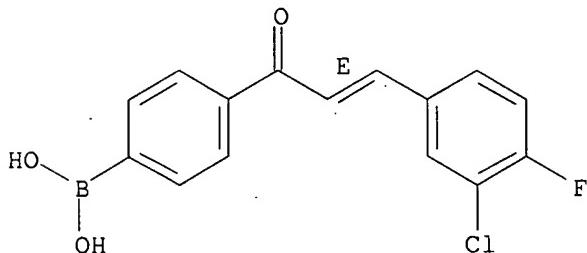
Double bond geometry as shown.



RN 562823-91-0 CAPLUS

CN Boronic acid, [4-[(2E)-3-(3-chloro-4-fluorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

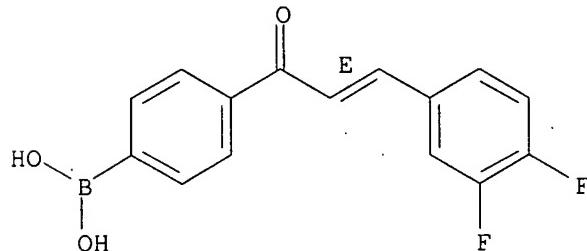
Double bond geometry as shown.



RN 562823-92-1 CAPLUS

CN Boronic acid, [4-[(2E)-3-(3,4-difluorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

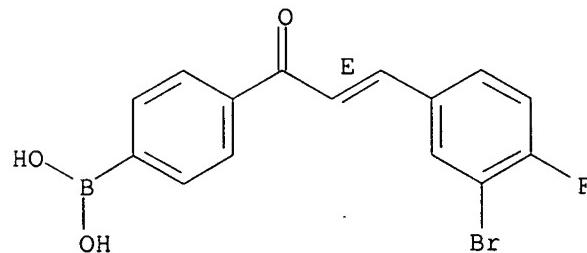
Double bond geometry as shown.



RN 562823-93-2 CAPLUS

CN Boronic acid, [4-[(2E)-3-(3-bromo-4-fluorophenyl)-1-oxo-2-propenyl]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT:

34

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:211081 CAPLUS

DOCUMENT NUMBER: 137:134122

TITLE: Chalcone-analogue fluorescent probes for saccharides  
signaling using the boronic acid group

AUTHOR(S): DiCesare, Nicolas; Lakowicz, Joseph R.

CORPORATE SOURCE: Center for Fluorescence Spectroscopy, School of  
Medicine, University of Maryland, Baltimore, MD,  
21201, USA

SOURCE: Tetrahedron Letters (2002), 43(14), 2615-2618

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

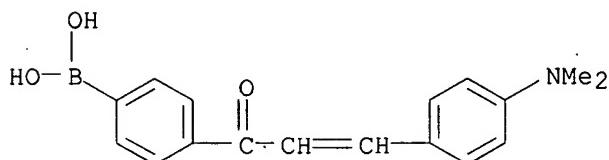
AB Two new fluorescent probes based on 1,3-diphenylprop-2-en-1-one and on 1,5-diphenylpenta-2,4-dien-1-one structures are presented. Both probes possess one electron-donating dimethylamino group and one boronic acid group (electron-withdrawing group). The change between the neutral and the anionic form of the boronic acid group induced at high pH and/or in presence of sugar, induces optical changes for both probes. Spectroscopic data, pKa and dissociation consts. for different monosaccharides are presented and discussed in terms of sugar detection.

IT 406719-92-4

RL: ARU (Analytical role, unclassified); DEV (Device component use); PRP (Properties); ANST (Analytical study); USES (Uses)  
(chalcone-analog fluorescent probes for saccharides signaling using the boronic acid group)

RN 406719-92-4 CAPLUS

CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:73583 CAPLUS

DOCUMENT NUMBER: 136:275539

TITLE: New sensitive and selective fluorescent probes for fluoride using boronic acids

AUTHOR(S): DiCesare, Nicolas; Lakowicz, Joseph R.

CORPORATE SOURCE: Center for Fluorescence Spectroscopy, University of Maryland, School of Medicine, Baltimore, MD, 21201, USA

SOURCE: Analytical Biochemistry (2002), 301(1), 111-116  
CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We report the spectroscopic characterization of six fluorescent probes for fluoride sensing and/or monitoring. All probes are based on the ability of the boronic acid group to interact with fluoride. The probes combine electron donor and withdrawing groups and involve the excited charge transfer mechanism. The change between the neutral form of the boronic acid group [R-B(OH)2], which is an electron withdrawing group, and the anionic trifluoro form [R-BF3], which is an electron donating group, is at the origin of the different spectral changes observed for the investigated probes. Two probes are based on the stilbene structure where the boronic group in the 4 position is coupled with a cyano group, in one case, and the dimethylamino group in the other case, both at the 4' position. Another probe is based on the diphenyl-1,4-butadiene possessing the boronic acid group in the 4' position and a dimethylamino group in the 4' position. One probe is based on the diphenyloxazole structure having both the boronic acid and the dimethylamino groups in para positions. The two last probes reported are based on the benzalacetophenone (chalcone) structure, again coupling the boronic acid and dimethylamino groups. All

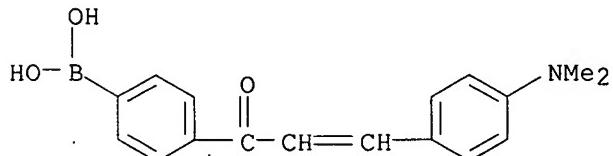
probes show spectral shifts and/or intensity changes in the presence of fluoride resulting in most of the cases to a wavelength-ratiometric way for the detection and/or anal. of fluoride. Selectivity and stability consts. are also presented and discussed. (c) 2002 Academic Press.

IT 406719-92-4

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(fluorescent probes for fluoride using boronic acids)

RN 406719-92-4 CAPLUS

CN Boronic acid, B-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propen-1-yl]phenyl]- (CA INDEX NAME)



REFERENCE COUNT:

28

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT